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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,349	11/30/2004	B. Mulcahy	41557-211276	3062
26694	7590	01/11/2006	EXAMINER	
VENABLE LLP			TRAN, THUY V	
P.O. BOX 34385			ART UNIT	
WASHINGTON, DC 20045-9998			PAPER NUMBER	
			2821	

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/516,349	Applicant(s) MULCAHY ET AL.	
	Examiner Thuy V. Tran	Art Unit 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/30/2004 incl. preliminary amendment.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/31/05; 4/5/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a response to the Applicants' filing on 11/30/2004 and preliminary amendment concurrently filed therewith. In virtue of this amendment, claims 1-20 are originally filed; claims 21-29 are newly added; and thus, claims 1-29 are now presented in the instant application.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statements

2. The information disclosure statements (IDSs) submitted on 04/05/2005 and 08/31/2005 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Title Objection

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections/ Minor Informalities

4. Claims 5, 11, 14-18, 21, and 27 are objected to because of the following informalities:

Claim 5, line 1, "comprising a" should be changed to --wherein the-- (since the second strap was recited in claim 1);

Claim 11, line 2, --first-- should be inserted between "the" and "strap";

Claim 14, line 1, --first-- should be inserted after "the";

Claim 15, line 2, --first-- should be inserted between "the" and "strap";

Claim 16, line 1, --first-- should be inserted after "the";

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Claim 17, line 1, --first-- should be inserted between “the” and “strap”;

Claim 18, line 2, “with alternate” should be changed to --alternately with--;

Claim 21, line 2, --.-- should be inserted after “regions”;

Claim 27, line 1, “further comprising a” should be replaced with --wherein the--; and

Claim 27, line 2, “with alternate” should be changed to --alternately with--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6. Claims 22-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 22-26, the term “strap” recited therein renders the claims indefinite since it is not clear which one of the straps is being claimed. Clarification is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-6, 9-13, 15, 18-22, 24, and 27-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Yuichi (JP 05-266816).

With respect to claim 1, Yuichi discloses, in Figs. 1-3, a magnetron of the type having a cathode (inside straps; not shown) and a surrounding anode [1a] and a plurality of cavities [5] (see Fig. 1) defined by anode vanes [4a] (see Fig. 1) comprising at least a first ring strap [3a] arranged generally around the cathode and in electrical contact with alternate ones of the vanes, the first ring strap [3a] having one or more protruding regions [6a, 6b] (see Fig. 1) which protrude in a radial direction between the cathode and anode at one or more positions so as to increase the capacitance between the first ring strap [3a] and a second strap [2a] or between the first strap and anode vanes to which the first strap is not connected (see Abstract translation).

With respect to claim 2, Yuichi discloses, in Figs. 1-3, that the one or more positions are between the anode vanes to which the at least first ring strap is connected.

With respect to claim 3, Yuichi discloses, in Figs. 1-3, that the protruding regions protrude radially inwards.

With respect to claim 4, Yuichi discloses, in Figs. 1-3, that the protruding regions protrude towards tips of the anode vanes.

With respect to claim 5, Yuichi discloses, in Figs. 1-3, that the second strap [2a] is generally surrounded by the first ring strap [3a], wherein the one or more protruding regions of the first ring strap [3a] protrude towards the second strap [2a] so as to increase the capacitance between the first and second straps (see Abstract translation).

With respect to claim 6, Yuichi discloses, in Figs. 1-3, that the protruding regions are arranged to increase the capacitance for alternate vanes.

With respect to claim 9, Yuichi discloses, in Figs. 1-3, that the protruding regions comprise deviations in the first strap ring itself.

With respect to claim 10, Yuichi discloses, in Figs. 1-3, that the protruding regions comprise thickenings of the first strap ring [3a].

With respect to claim 11, Yuichi discloses, in Figs. 1-3, a magnetron comprising a plurality of anode vanes [4a] and a first strap [3a] in contact with alternate ones of vanes, the strap having a protruding region [6a, 6b].

With respect to claim 12, Yuichi discloses, in Figs. 1-3, that the first strap [3a] has a plurality of protruding regions [6a, 6b].

With respect to claim 13, Yuichi discloses, in Figs. 1-3, that the protruding regions are substantially periodically spaced around at least a portion of the strap.

With respect to claim 15, Yuichi discloses, in Figs. 1-3, that the strap comprises a closed ring.

With respect to claim 18, Yuichi discloses, in Figs. 1-3, that the magnetron further comprises a second strap [2a] in contact alternately with others of the vanes.

With respect to claim 19, Yuichi discloses, in Figs. 1-3, that the second strap [2a] includes at least one protruding region.

With respect to claim 20, Yuichi discloses, in Figs. 1-3, that the magnetron includes a plurality of straps, at least some of which have at least one protruding region.

With respect to claim 21, Yuichi discloses, in Figs. 1-3, that the first strap [3a] has a plurality of protruding regions [6a, 6b].

With respect to claim 22, Yuichi discloses, in Figs. 1-3, that the protruding regions are substantially periodically spaced around at least a portion of the strap.

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With respect to claim 24, Yuichi discloses, in Figs. 1-3, that the strap comprises a closed ring.

With respect to claim 27, Yuichi discloses, in Figs. 1-3, that the second strap [2a] is in contact alternately with others of the vanes.

With respect to claim 28, Yuichi discloses, in Figs. 1-3, that the second strap [2a] includes at least one protruding region.

With respect to claim 29, Yuichi discloses, in Figs. 1-3, that the magnetron includes a plurality of straps, at least some [2a, 3a] of which have at least one protruding region.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuichi (JP 05-266816).

With respect to claims 7-8, Yuichi discloses all of the claimed subject matter, as expressly recited in claim 1, except for the protruding regions being arranged asymmetrically around a portion of the first strap ring and on one-half of the first strap ring. However, this difference is not of patentable merits since it is believed that such an arrangement does not

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provide any other effect but the increase of the capacitance between the straps. Therefore, to configure the protruding regions of the magnetron of Yuichi in such a way to increase the capacitance between the straps would have been deemed as an obvious development to a person skilled in the art.

11. Claims 14 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuichi (JP 05-266816) in view of Takada (U.S. Patent No. 4,743,805).

With respect to claims 14 and 23, Yuichi discloses all of the claimed subject matter, as expressly recited in claim 11 and claim 1 respectively, except for the first strap comprises an open ring.

Takada discloses, in Fig. 20, a strap comprising an open ring.

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the magnetron device of Yuichi with an open ring in the first strap so as to facilitate the connection with the related parts since such an arrangement of the open ring for the stated purpose has been well known in the art as evidenced by the teachings of Takada (see col. 6, lines 1-10).

12. Claims 16-17 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuichi (JP 05-266816) in view of Skowron (U.S. Patent No. 2,766,403).

With respect to claims 16-17, Yuichi discloses all of the claimed subject matter, as expressly recited in claim 11 and claim 1 respectively, except for the first strap being flexible or adjustable.

Skowron discloses, in Fig. 1, a pair of straps [15, 16], which are adjustable or flexible.

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It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the magnetron device of Yuichi by employing a flexible or adjustable strap so as to facilitate the connection with the related parts since such an arrangement of the flexible/adjustable strap for the stated purpose has been well known in the art as evidenced by the teachings of Skowron (see col. 2, line 62 – col. 3, line 4).

Remarks

13. The record shows that this Application is filed under 35 U.S.C. 371 and claims the benefit of the United Kingdom foreign priority. For clarity, providing such a data in the first part of the instant specification is suggested.

Citation of relevant prior art

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Ogura et al. (U.S. Patent No. 5,146,136) discloses a magnetron.

Prior art Ogura et al. (U.S. Patent No. 4,205,257) discloses a magnetron.

Inquiry

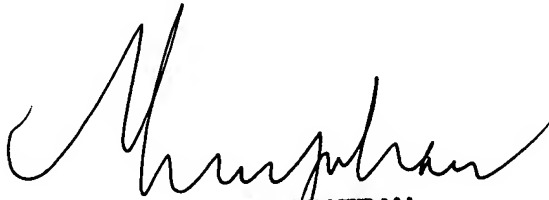
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

01/09/2006



THUY V. TRAN
PRIMARY EXAMINER